

WHAT IS CLAIMED IS:

- 1 1. An ink cartridge for an ink jet printer comprising:
2 a substratum;
3 a cover attached to the substratum and having an aperture provided
4 therein;
5 a printhead attached to the substratum and provided at least partially
6 within the aperture;
7 at least one connector extending from the printhead into the aperture;
8 an adhesive material covering at least a portion of the at least one
9 connector; and
10 at least one barrier that prevents the adhesive material from flowing to
11 locations away from the at least one connector.
- 1 2. The ink cartridge of claim 1, wherein the substratum has a plurality of
2 electrical contacts provided thereon.
- 1 3. The ink cartridge of claim 2, wherein the plurality of electrical contacts
2 provided on the substratum are provided within the aperture.
- 1 4. The ink cartridge of claim 3, wherein the printhead includes a nozzle
2 surface and a plurality of contacts provided on the nozzle surface and wherein the at
3 least one connector comprises a plurality of wires that extend between the plurality of
4 contacts provided on the nozzle surface and the plurality of contacts provided on the
5 substratum.
- 1 5. The ink cartridge of claim 1, wherein the printhead has a perimeter and
2 is provided in the aperture such that a gap is provided between the printhead and the
3 cover about the perimeter of the printhead and wherein the printhead has a plurality of
4 sides and the at least one barrier prevents the adhesive material from flowing along
5 the length of at least one of the sides of the printhead.

1 6. The ink cartridge of claim 1, wherein the cover includes at least one
2 cutout extending from the aperture and at least a portion of the at least one barrier is
3 provided in the at least one cutout.

1 7. The ink cartridge of claim 1, wherein the at least one barrier comprises
2 an adhesive material.

1 8. The ink cartridge of claim 7, wherein the at least one barrier comprises
2 an epoxy.

1 9. The ink cartridge of claim 1, wherein the at least one barrier comprises
2 a dam provided adjacent at least a portion of the printhead and comprising an
3 adhesive material.

1 10. The ink cartridge of claim 9, wherein at least a portion of the dam is
2 provided in a cutout extending from the aperture.

1 11. The ink cartridge of claim 1, wherein the adhesive material covering at
2 least a portion of the at least one connector comprises an epoxy.

1 12. The ink cartridge of claim 1, wherein the at least one barrier comprises
2 an epoxy having a higher viscosity than the adhesive material covering at least a
3 portion of the at least one connector.

1 13. The ink cartridge of claim 1, further comprising a pressure sensitive
2 adhesive for attaching the cover to the substratum.

1 14. The ink cartridge of claim 1, wherein the cover has a top surface and
2 the at least one barrier protrudes from the top surface for preventing the flow of
3 adhesive over the cover beyond the at least one barrier.

1 15. The ink cartridge of claim 14, wherein the aperture provided in the
2 cover has a side adjacent an end of the printhead and the at least one barrier acts to

3 prevent the flow of the adhesive material over the cover beyond the at least one
4 barrier.

1 16. The ink cartridge of claim 1, wherein at least a portion of at least one
2 barrier has a relatively rounded cross-sectional shape.

1 17. A fluid ejection cartridge for an ink jet printer comprising:
2 a substratum having a plurality of printheads attached thereto;
3 a cover attached to the substratum and having a plurality of apertures
4 formed therein, each of the apertures configured to receive at least one of the plurality
5 of printheads therein;
6 at least one connector extending from each of the plurality of
7 printheads to contacts provided on the substratum;
8 an adhesive material covering at least a portion of the at least one
9 connector and filling at least a portion of each of the plurality of apertures; and
10 means for preventing the adhesive material from flowing to locations
11 away from areas near the at least one connector.

1 18. The fluid ejection cartridge of claim 17, wherein the substratum has a
2 plurality of electrical contacts provided thereon, wherein each of the plurality of
3 apertures has at least one electrical contact provided within the aperture, wherein each
4 of the printheads includes a nozzle surface and a plurality of contacts provided on the
5 nozzle surface, and wherein the at least one connector comprises a plurality of wires
6 and each of the plurality of wires extend between at least one of the plurality of
7 contacts provided on the nozzle surface and at least one of the plurality of contacts
8 provided on the substratum.

1 19. The fluid ejection cartridge of claim 17, wherein the cover is attached
2 to the substratum such that a gap exists between each of the plurality of printheads
3 and the cover.

1 20. The fluid ejection cartridge of claim 19, wherein each of the printheads
2 has a plurality of sides and the means for preventing the adhesive material from

3 flowing to locations away from the at least one connector includes means for
4 preventing the adhesive material from flowing along at least one of the sides of the
5 printheads.

1 21. The fluid ejection cartridge of claim 20, wherein the cover includes a
2 plurality of cutouts extending from each of the apertures.

1 22. The fluid ejection cartridge of claim 17, wherein the adhesive material
2 covering at least a portion of the at least one connector comprises an epoxy.

1 23. The fluid ejection cartridge of claim 17, wherein the cover has a top
2 surface and the means for preventing the adhesive material from flowing prevents the
3 flow of adhesive over the cover beyond the means for preventing the adhesive
4 material from flowing.

1 24. A cover for a fluid ejection device for an ink jet printer comprising:
2 at least one aperture configured to receive at least a portion of a
3 printhead therein when the cover is coupled to the fluid ejection device; and
4 a barrier protruding from a surface of the cover adjacent at least a
5 portion of the aperture; and
6 wherein the barrier is configured to restrict the flow of an adhesive
7 utilized to encapsulate at least one connector used to electrically connect the printhead
8 to the fluid ejection device.

1 25. The cover of claim 24, wherein the barrier is integrally formed with the
2 cover.

1 26. The cover of claim 24, wherein at least a portion of the barrier has a
2 relatively rounded cross-sectional shape.

1 27. The cover of claim 24, wherein the aperture has at least one side and
2 the barrier extends along the entire side of the aperture.

1 28. The cover of claim 24, wherein the cover has a size and shape such
2 that a gap is provided between the cover and the printhead when the cover is coupled
3 to the fluid ejection device.

1 29. The cover of claim 24, wherein the cover further comprises at least one
2 cutout formed in the cover extending outward from the aperture for receiving therein
3 at least a portion of a barrier material.

1 30. A cover for a fluid ejection device for an ink jet printer comprising:
2 at least one aperture configured to receive at least a portion of a
3 printhead therein when the cover is coupled to the fluid ejection device; and
4 at least one cutout formed in the cover extending outward from the
5 aperture for receiving therein at least a portion of a barrier material;
6 wherein the barrier material is configured to restrict the flow of an
7 adhesive utilized to encapsulate at least one connector used to electrically connect the
8 printhead to the fluid ejection device.

1 31. The cover of claim 30, wherein at least a portion of the at least one
2 cutout has a relatively rounded shape.

1 32. The cover of claim 30, wherein the cover comprises at least two
2 cutouts formed in the cover extending outward from the aperture.

1 33. The cover of claim 32, wherein each of the cutouts are configured to
2 received at least a portion of a barrier that is configured to prevent the flow of the
3 adhesive along the length of the printhead when the cover and printhead are coupled
4 to the fluid ejection device.

1 34. The cover of claim 30, wherein the cover has a size and shape such the
2 a gap is provided between the cover and the printhead when the cover is coupled to
3 the fluid ejection device.

1 35. The cover of claim 30, wherein the cover further comprises a barrier
2 protruding from a surface of the cover adjacent at least a portion of the aperture.

1 36. A method for manufacturing an ink jet printer cartridge comprising:
2 attaching a printhead to a substratum;
3 attaching a cover to the substratum such that the printhead is provided
4 at least partially in an aperture formed in the cover and a gap exists between the
5 printhead and the cover; and
6 coupling the printhead to the substratum using a plurality of wires; and
7 providing at least one barrier in the gap between the printhead and the
8 cover.

1 37. The method of claim 36, further comprising filling at least a portion of
2 the gap between the printhead and the cover with an adhesive material, wherein the at
3 least one barrier restricts the flow of the adhesive material.

1 38. The method of claim 37, wherein the step of filling at least a portion of
2 the gap between the printhead and the cover with an adhesive comprises
3 encapsulating at least a portion of the wires.

1 39. The method of claim 38, wherein the step of filling at least a portion of
2 the gap between the printhead and the cover with an adhesive comprises
3 encapsulating a first portion of the wires and further comprising encapsulating a
4 second portion of the wires with an adhesive different from the adhesive used to
5 encapsulate the first portion of the wires.

1 40. The method of claim 39, wherein the aperture includes at least one
2 recess extending outward from the printhead and at least a portion of the at least one
3 barrier is provided in the recess.

1 41. The method of claim 36, wherein barrier comprises an adhesive
2 material.

1 42. The method of claim 41, wherein the barrier comprises an epoxy.

1 43. The method of claim 36, wherein the step of providing at least one
2 barrier in the gap between the printhead and the cover comprises providing at least

3 two barriers in the gap between the printhead and the cover adjacent an end of the
4 printhead.

1 44. The method of claim 43, wherein the wires are provided adjacent the
2 end of the printhead and further comprising encapsulating at least a portion of the
3 wires with an adhesive material.

1 45. The method of claim 44, wherein the at least two barriers retain the
2 adhesive material adjacent the end of the printhead.

1 46. The method of claim 36, wherein the cover has a top surface and
2 further comprising providing a barrier that protrudes from the top surface.

1 47. The method of claim 46, further comprising providing an adhesive
2 material in at least a portion of the gap between the cover and the printhead, wherein
3 the barrier protruding from the top surface acts to prevent the flow of adhesive
4 material onto the cover beyond the barrier.